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Misclassification of American Indian Race in Cancer Incidence Data in North Carolina

by

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Abstract

Objectives: The purpose of this study is to quantify the extent of misclassification of race among non-federally recognized American Indians in North Carolina cancer incidence data, correct race among those misclassified, and evaluate the impact of misclassification on American Indian cancer incidence rates.

Methods: We identified 14 counties in North Carolina that had the majority of American Indians belonging to the seven state-recognized, non-federally recognized tribes. We collaborated with the tribe in each county and matched the cases of cancer in the North Carolina Central Cancer Registry (CCR) to the tribal rolls. Data were analyzed to calculate what percentage of matching names were not correctly identified as American Indian in the CCR. We calculated the percentage misclassified, corrected the CCR classification, and then recalculated the cancer incidence rates for total cancer and four major cancers (prostate, female breast, lung, and colorectal). We compared the recalculated rates to the original rates.

Results: There were 626 American Indians listed on the tribal rolls who matched to the CCR case records; 112 (17.9%) were not identified as American Indian on the CCR list. Comparing 1996–2000 age-adjusted cancer incidence rates before and after reclassification, the increase in rates for American Indians was 19 percent for all cancers, 41 percent for prostate, 18 percent for female breast, 10 percent for lung, and 11 percent for colorectal cancer.

Conclusions: The study estimated 18 percent under-ascertainment of non-reservation American Indians in cancer registration in North Carolina. The underestimation of cancer burden among American Indians in North Carolina may lead to lower resources for prevention, screening, and treatment programs, as well as lower funding for research.

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